

Lead Poisoning Prevention – Abstract

The Massachusetts Department of Public Health Childhood Lead Poisoning Prevention Program (MACLPPP) is seeking funding from the Centers for Disease Control and Prevention as a competitive grantee. CDC funds will be used to maintain and enhance our extensive childhood lead poisoning prevention program. The program includes comprehensive case management teams consisting of a nurse case manager, environmental health inspectors and community health workers. These components form a cohesive design which provides families with both medical and environmental intervention as called for by the Massachusetts's Lead Law, one of the strongest primary prevention statutes in the nation. CLPPP epidemiology and support staff, to be funded by CDC, is also responsible for comprehensive childhood blood lead surveillance and epidemiology, including management of blood lead and environmental databases. These data will continue to direct the program's efforts and inform the public with the goal of reducing childhood lead poisoning.

The geographic and economic composition of Massachusetts, owing to its age and history, results in a significant lead burden for children in our jurisdiction. The 2012 American Community Survey 5-year estimate from the US Census indicates that Massachusetts has the third highest percentage of pre-1978 housing units of any state, with 78% of all housing having been built prior to 1978 and potentially contaminated with lead. Furthermore, evaluating data on blood lead screening and elevated childhood blood lead incidence reveals relationships with economic indicators that result in areas of the state at particular high risk. In 2013, 6,826 children were identified with a blood lead value of 5 µg/dL or greater that would require follow-up intervention for secondary and tertiary prevention and 48 out of 351 total Massachusetts communities were identified as high risk for elevated blood lead based upon an algorithm of age of housing, poverty level, and incidence of elevated blood lead. Preliminary data also suggests that other Massachusetts populations may be underserved with respect to the risk for elevated blood lead. These include refugee populations and communities with lower screening rates. Planned enhancements to data collection of both blood lead and environmental data, particularly with respect to race and ethnicity of screened children, will improve our ability to use surveillance for program and policy development, as well as targeting of prevention efforts.

Recognizing that surveillance is only the beginning of our work, we continue to see significant need for progress in primary prevention and improvement of our housing through private sector inspections and remediation. Massachusetts has established a strong foundation for this work, due in large part to the strength of our statute and regulations and our collaborations with housing and other community partners. Through this cooperative agreement we will enhance our state of the art childhood blood lead surveillance, case management, and prevention program to target more high risk communities, to expand our collaborations, and to develop new methods of evaluation in our effort to make more Massachusetts homes lead safe and to see fewer adversely impacted children in Massachusetts.